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An Arrangement for Showing, by Projection on a Screen, the Coloured Fringes Produced when a Transparent Grating is Laid with its Ruled Face against a Plane Mirror

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An Arrangement for Showing, by Projection on a Screen, the Coloured Fringes Produced when a Transparent Grating is Laid with its Ruled Face against a Plane Mirror, was shown at the Meeting on March 9th, by Mr. A. W. CLAYDEN.

THE light from a small lantern is incident in an approximately parallel beam on the interface of the grating and mirror, which are held together in a wooden framework supported on a stand. The position of the grating-mirror combination is adjusted so that the central reflected beam, or any one of the diffracted beams, is returned just alongside the lantern. The beam passes through a projection lens which focuses the fringes on a distant screen. The fringes thus obtained are very bright, and the simplest apparatus and adjustments suffice for their production.

DISCUSSION.

Dr. R. S. WILLOWS mentioned that Fellows had informed him that these fringes had been described by Barus in the "Philosophical Magazine" (July, 1910, and July, 1911). He understood that they had also been exhibited by Rheinberg at the Optical Convention in 1910. Mr. Clayden's method of exhibiting them by projection would, he thought, be distinctly useful to teachers.